

CONTENTS

Improved gram-quantity isolation of malto-oligosaccharides by preparative HPLC A.T. Hotchkiss, Jr., R.M. Haines and K.B. Hicks (Philadelphia, PA, USA)	1
Molecular and crystal structure of the bola-amphiphile <i>N</i> -[8-(D-gluconamido)octyl]-D-gluconamide A. Müller-Fahrnow, W. Saenger, D. Fritsch, P. Schnieder and J.-H. Fuhrhop (Berlin, Germany)	11
The crystal and molecular structures of 1,2,3,4,5,6,7,8-octa- <i>O</i> -acetyl-L-threo-L-altro- and -L-threo-L-galacto-octitol P. Köll (Oldenburg, Germany), M. Morf, B. Zimmer, J. Kopf (Hamburg, Germany), A. Berger, K. Dax and A.E. Stütz (Graz, Austria)	21
A detailed ¹ H and ¹³ C NMR study of a repeating disaccharide of hyaluronan: the effects of temperature and counterion type W. Sicińska, B. Adams and L. Lerner (Madison, WI, USA)	29
An AMI molecular orbital study of α -D-glucopyranose and β -maltose: Evaluation and implications M.E. Brewster, M.-j. Huang, E. Pop (Gainesville, FL, USA), J. Pitha (Baltimore, MD, USA), M.J.S. Dewar (Gainesville, FL, USA), J.J. Kaminski (Bloomfield, NJ, USA) and N. Bodor (Gainesville, FL, USA)	53
Large-scale synthesis of β -L-fucopyranosyl phosphate and the preparation of GDP- β -L-fucose K. Adelhorst and G.M. Whitesides (Cambridge, MA, USA)	69
α -Fucosylation by 2,3,4-tri- <i>O</i> -benzoyl- α -L-fucopyranosyl bromide under Helferich conditions N.E. Nifant'ev, V.Y. Amochaeva, A.S. Shashkov and N.K. Kochetkov (Moscow, Russian Federation)	77
The stepwise synthesis of oligo(glycosyl phosphates) via glycosyl hydrogenphosphonates. The chemical synthesis of oligomeric fragments from <i>Hansenula capsulata</i> Y-1842 exophosphomannan and from <i>Escherichia coli</i> K51 capsular antigen A.V. Nikolaev, I.A. Ivanova and V.N. Shibaev (Moscow, Russian Federation)	91
Enantiospecific synthesis of 1-deoxythiomannojirimycin from a derivative of D-glucose I.I. Cubero, M.T.P. López-Espinosa (Granada, Spain), A.C. Richardson (London, UK) and M.D.S. Ortega (Granada, Spain)	109
An electrophile-mediated cyclization on the 1,6-anhydro-D-glucopyranose framework C. Leteux, A. Veyrières and F. Robert (Paris, France)	119
Hydrothermal formation of 1,2,4-benzenetriol from 5-hydroxymethyl-2-furaldehyde and D-fructose G.C.A. Luijckx, F. Van Rantwijk and H. Van Bakkum (Delft, Netherlands)	131

All- α -D-linked tetra- and penta-saccharide substructures of Trestatin A by block syntheses with triflic anhydride as promoter H.P. Wessel, B. Mayer and G. Englert (Basel, Switzerland)	141
Microbial synthesis of 3-deoxy-D-erythro-hex-2-ulosonic acid 6-phosphate B.R. Knappmann (Jülich, FRG), M.A. El-Nawawy, H.G. Schlegel (Göttingen, FRG) and M.-R. Kula (Jülich, FRG)	153
Chemical synthesis of a comb-shaped, branched stereoregular polysaccharide, 4-O- α -D-mannopyranosyl-(1 \rightarrow 6)- α -D-mannopyranan K. Kobayashi, K. Nomura and M. Okada (Nagoya, Japan)	161
N-Acetyl group distribution in partially deacetylated chitins prepared under homogeneous conditions H. Sashiwa, H. Saimoto, Y. Shigemasa (Tottori, Japan) and S. Tokura (Sapporo, Japan) ..	167
Identification of 2-amino-2,6-dideoxy-D-glucose (D-quinovosamine), isolated from the cell walls of the alkaliphilic <i>Bacillus</i> sp. Y-25, by 500-MHz ^1H NMR spectroscopy M. Ito, R. Aono and K. Horikoshi (Yokohama, Japan)	173
Structural studies of <i>Vibrio fluvialis</i> M-940 O-antigen polysaccharide L. Kenne (Uppsala, Sweden), B. Lindberg (Stockholm, Sweden), M.M. Rahman and M. Mosihuzzaman (Dhaka, Bangladesh)	181
Formation of α -(1 \rightarrow 6), α -(1 \rightarrow 3), and α -(1 \rightarrow 2) glycosidic linkages by dextranucrase from <i>Streptococcus sanguis</i> in acceptor-dependent reactions M.K. Bhattacharjee and R.M. Mayer (Columbus, OH, USA)	191
Characterisation of hot-water-soluble components of starches G. Murugesan, K. Shibnuma and S. Hizukuri (Kagoshima, Japan)	203
The systems of carrageenans from cystocarpic and tetrasporic stages from <i>Iridaea undulosa</i> : fractionation with potassium chloride and methylation analysis of the fractions C.A. Stortz and A.S. Cerezo (Buenos Aires, Argentina)	217
Purification and characterisation of a β -D-xylosidase from the anaerobic rumen fungus <i>Neocallimastix frontalis</i> V. Garcia-Campayo and T.M. Wood (Aberdeen, UK)	229
Purification, characterisation, and carbohydrate specificity of the lectin of <i>Ficus cunia</i> S. Ray, H. Ahmed, S. Basu and B.P. Chatterjee (Calcutta, India)	247
<i>Notes</i>	
Crystal and molecular structure of 1-phenyl-(1,2-dideoxy- α -D-glucosyl)furan[2,1-d]imidazolidine-2-selone M.J. Diáñez, M.D. Estrada and A. López-Castro (Sevilla, Spain)	265
Structure of the acidic exopolysaccharide of <i>Pseudomonas marginalis</i> Strain ATCC 10844 S.F. Osman and W.E. Fett (Philadelphia, PA, USA)	271
Use of 2-pyridyl 2-acetamido-3,4,6-tri-O-acetyl-2-deoxy-1-thio- β -D-glucopyranoside as a glycosyl donor and methyl iodide as an activator for the synthesis of 1,2- <i>trans</i> -linked saccharides H.B. Mereyala and V.R. Gurijala (Hyderabad, India)	277

Enantiospecific synthesis of (<i>R</i>)-1,6-dioxaspiro[4.5]decane from a derivative of D-fructose I. Izquierdo Cubero, M.T. Plaza López-Espinosa (Granada, Spain), A.C. Richardson and K.H. Aamlid (London, United Kingdom)	281
The reaction of methyl 5-thio-3- <i>O</i> -toluene- <i>p</i> -sulfonyl- α -D-glucopyranoside and its triacetate with sodium azide N.A. Al-Masoudi (Basrah, Iraq) and W. Pfeleiderer (Konstanz, Germany)	287
Synthesis of methyl 2,3-anhydro- α - and - β -L-erythrofuranside J. Jarý and I. Raich (Prague, Czechoslovakia)	291
Reaction of some 1,2- <i>trans</i> -aldose peracetates with thionyl chloride–acetic acid — a convenient synthesis of some 1,2- <i>trans</i> -per- <i>O</i> -acetyl-D-glycosyl chlorides G.J.F. Chittenden (Nijmegen, Netherlands)	297
Synthesis of 3- <i>O</i> -(alkyl-branched acyl)-2-deoxy-2[(3 <i>R</i>)-3-hydroxytetradecanamido]-4- <i>O</i> -phos- phono-D-glucose derivatives related to bacterial lipid A Y. Ogawa, M. Wakida, H. Ishida, M. Kiso and A. Hasegawa (Gifu, Japan)	303
A new practical synthesis of (2 <i>S</i> , 3 <i>R</i> , 4 <i>R</i> , 5 <i>S</i>)-3,4-dihydroxy-2,5-bis(hydroxymethyl)pyrrolidine W. Zou and W.A. Szarek (Kingston, ON, Canada)	311
Reexamination of composition and physico-chemical characteristics of water-soluble pectic substances from guava (<i>Psidium guajava</i> L.) O. Marcelin, L. Saulnier, P. Williams and J.-M. Brillouet (Montpellier, France)	315
<i>Preliminary communications</i>	
Stereocontrolled synthesis of GD ₂ Y. Matsuzaki, S. Nunomura, Y. Ito, M. Sugimoto, Y. Nakahara (Saitama, Japan) and T. Ogawa (Japan, Tokyo)	C1
Stereospecific synthesis of 1,2- <i>cis</i> -glycosides of 2-amino sugars N.K. Kochetkov, E.M. Klimov, N.N. Malysheva and A.V. Demchenko (Moscow, Russian Federation)	C7
Structural study of a new sialic acid-containing O-specific polysaccharide of <i>Salmonella arizonae</i> O21; formation of anhydro derivatives of neuraminic acid upon treatment with anhydrous hydrogen fluoride E.V. Vinogradov, N.A. Paramonov, Y.A. Knirel, A.S. Shashkov and N.K. Kochetkov (Moscow, Russian Federation)	C11
<i>Announcements</i>	C15
<i>Author index</i>	C17
<i>Subject index</i>	C19
<i>Contents</i>	C23